


CERTIFICATE

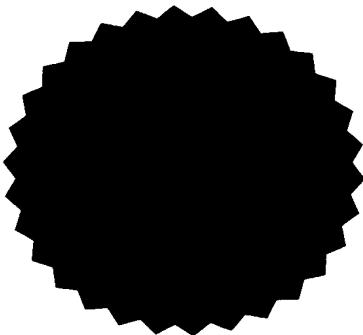
This certificate is issued in support of an application for Patent registration in a country outside New Zealand pursuant to the Patents Act 1953 and the Regulations thereunder.

I hereby certify that annexed is a true copy of the Provisional Specification as filed on 24 February 2003 with an application for Letters Patent number 524351 made by Kevin John Bateman;Carol Elsa Bateman.

Dated 16 July 2003.

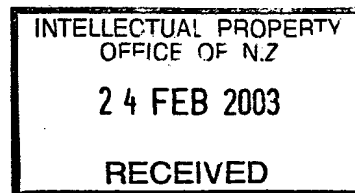


Neville Harris
Commissioner of Patents



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Patents Form No. 4

My ref P03109/B

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PATENTS ACT 1953

PROVISIONAL SPECIFICATION

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System and method for displaying a nutritional program

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We, **Kevin John Bateman** and **Carol Elsa Bateman**, both of 148 Normandale Road, Lower Hutt, New Zealand, and both New Zealand citizens, do hereby declare this invention to be described in the following statement:

TITLE

System and method for displaying a nutritional program

BACKGROUND THE INVENTION

5 Nutritional programs often require that the macronutrients in food be eaten in specific ratios. For instance in one program it is proposed that food should be eaten with the macronutrients in the ratio of 7 grams protein, 9 grams carbohydrate and 3 grams fat. The difficulty with such programs is that it can be excessively complicated for the person following the program to actually decide whether the food that is to be eaten will fall
10 within the desired ratios. In one method it is proposed that the food be identified by forming movable units which may be coloured or shaped to represent weights and composition of the macronutrients of food. A person can then build blocks from the units and thereby construct a visual representation of the nutritional qualities available in the food that the person desires to eat.

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 It is also known that an advance on the basic system set out above consists in utilising a block system where for instance the amount of any food that contains seven grams of protein is called a unit of protein and the amount of any food that contains nine grams of carbohydrate is called a unit of carbohydrate and the amount of any food that
20 contains three grams of fat is called a unit of fat. The adoption of the block system means that if a person wants a one block snack then they will eat food represented by a one unit of protein food plus one unit of carbohydrate food plus one unit of fat food. This ratio is maintained so that if a person requires more food, then they would eat food that represents a multiple of units of food. For instance a three block meal would mean
25 the person would eat food represented by three units of protein, three units of carbohydrate and three units of fat and so forth.

 Although the block system should be basically quite a simple concept to follow, since it will allow for the calculation of total daily consumption together with meal to
30 meal balance of food, it is recognised that many people have difficulty in understanding the concept.

PRIOR ART

US Patent specification 6,296,488 discloses a diet method in which a plate is formed into a number of compartments each of which would enclose a representation of a specific quantity of food. A number of food cards are provided which display lists of varieties of foods with the foods being listed in specific sections to correspond to the compartments on the plate. The meal cards fit the shape of the compartments so the user can see the food items which may be used to fill the compartments.

US Patent specification 5,683,251 discloses a board which is divided into regions. A number of tokens are provided each of which represent a food or a beverage item selected from a specific food group and which are adapted to stick to the board. The tokens enable a person to track consumption of foods or beverages from the various food and beverage groups by adjusting the number of types of tokens and displaying them in the appropriate regions on the board

OBJECT OF THE INVENTION

It is therefore an object of this invention to provide a display means which can be utilised to enable a user to readily calculate a nutritional ~~program~~ by utilising a unit/block system to identify the macro nutritional components of food.

SUMMARY OF THE INVENTION

In one preferred form the invention may be said to comprise a dietary planning method and apparatus including

a plurality of units with each unit being identified to a nutrient of a food

wherein each unit has means to identify a particular food which includes the nutrient signified by the unit and

wherein each unit also represents a specific parameter of the food containing the nutrient.

and further wherein the units can be combined to form a block.

Preferably each unit is magnetic.

5

Preferably the specific parameter is the number, size or volume of the food.

Preferably each unit is coloured.

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Preferably the colours on the units are green for carbohydrate, brown for protein and yellow for fat nutrients.

Preferably the units include identification means to indicate whether the food signified by the unit is favourable, not favourable, or a fair choice.

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BRIEF DESCRIPTION OF THE DRAWINGS

A preferred form of the invention will now be described with the aid of the accompanying drawings wherein:

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Figures 1 and 2 are illustrations of full sized units depicting different forms of identifications.

Figure 3 is an illustration of a half sized unit.

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Figure 4 is an illustration of a combination of a full sized and a half sized unit.

Figure 5 is an illustration of a combination of two full sized units.

Figure 6 is an illustration of a block.

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Figure 7 is an illustration of a template.

Figure 8 are examples of templates of a one block meal, a two block meal and a three block meal respectively.

Figure 9 is an illustration of a partially constructed three block meal on a
5 template.

DESCRIPTION OF A PREFERRED EMBODIMENT

Preferred forms of the invention will now be described with the aid of the accompanying drawings. In all of the figures of the drawings, the horizontal hatching
10 represents a colour such as green, the diagonal hatching represent another colour such as brown and the vertical hatching represents another colour such as yellow. It will however be understood that the colours selected are essentially arbitrary and the colours referred to herein are given as an example only.

15 In a highly preferred form the colour green may represent carbohydrate nutrients, the colour brown may represent protein nutrients and the colour yellow may represent fat nutrients. The article depicted in each figure is either a unit or a combination of units and in a highly preferred form of the invention each unit may be a relatively thin structure which is suitably ~~magnetized~~ so the unit may magnetically adhere to a surface. It is to be
20 understood that ~~while~~ in a highly preferred form, the units are magnetized, it is also contemplated that other means can be utilised to retain the units to remain in place on a surface. For instance the units can include various forms of media which will enable the units to temporarily adhere to a surface can be utilised. One such media is that known as "VELCRO"TM

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Each unit is preferably of a specific geometrical or non geometrical shape and if the units are in the shapes of rectangles as illustrated in the drawings, the units can be of two sizes, such as a full size unit illustrated in Figures 1 and 2 which is in the form of a square and a half size unit such as illustrated in Figure 3 which is in the form of a
30 rectangle. Units may be positioned contiguously on any surface such as illustrated in Figures 4 and 5, to represent a sum of different or combinations of nutrients to form a full block or parts of a block as will be further described below.

In accordance with a highly preferred method of the present invention the colour green represents the carbohydrate content of a food with a nutrient weight of nine grams. The colour brown represents the protein content of a food with a nutrient weight of seven grams and the colour yellow represents a fat content of a food with a nutrient weight of one and a half grams. As it will be realised, the weights represented by the coloured units and the physical sizes of the units can vary according to the specific requirements.

To enable ready identification, the units may also include a representation of different foods. For instance the image on the unit illustrated in Figure 1 represents a kiwi fruit 1 and because kiwi fruit contains carbohydrate, the background 2 is green. It will be noted the unit illustrated in Figure 1 includes a tick 3 which signifies that the food is favourable. In addition, preferably each unit displays a specific quantity of the amount of each food that equals 7 grams of protein, 9 grams of carbohydrate or 1.5 grams of fat. As an example a unit could have a picture of a zucchini and display a green tick and also display the legend '3 cups r' or '2 cups c' where 'r' represents raw and 'c' represents cooked.

~~Ticks are~~ preferably used to signify ratings to indicate a food is favourable and the ticks may be coloured appropriately. For instance a green tick would signify the most favourable, an orange tick could signify the food is favourable but not as favourable as a green tick. Similarly an orange cross (X) could signify unfavourable and a red cross (X) could signify very unfavourable foods. Preferably but not necessarily a single overall rating can be applied to a block.

The image on the unit illustrated in Figure 2 represents a fish 4 which contains protein and so it is represented on a brown background 5 and because fish is favourable for the diet, the unit also includes a tick 3 and the amount of fish that contains 7 grams or a unit of protein, that is 40 grams.

The image on the unit illustrated in Figure 3 represents almonds 6 which contain fat and so is represented on a yellow background 7 and because it is a favourable food the unit includes a tick 3. It will be noted the unit illustrated in Figure 3 is approximately half the width of the unit illustrated in Figures 1 and 2. Items that are displayed on half sized units will usually be fat units which are normally depicted as a half unit. In addition, some of the carbohydrate units are split in half in order that half quantities of these units can be selected.

Figure 4 is an illustration of a food item containing a full protein and a half unit of fat. It would require the addition of another half unit of fat plus a full unit of carbohydrate to complete a balanced block of protein, carbohydrate and fat. The example illustrated in Figure 4 is a combination of units which represent thirty grams of lean chicken 8. Since chicken contains protein and fat, the representation of a chicken spans a unit of brown background 5 and a half unit of yellow background 7 to represent fat.

Figure 5 illustrates a food item containing the combination of two full sized units, that is carbohydrate and protein. Consequently to complete a balanced block of protein, carbohydrate and fat would require the addition of two half units of fat. The Figure depicts a half cup of yoghurt which contains a protein unit which is represented on a brown background 2 and a carbohydrate unit on a green background 2. Since yoghurt is regarded as favourable, the unit includes a tick 3.

Figure 6 is an illustration of a 'Zone BarTM 12' which has a green background 2, a brown background 5 and a yellow background 7. The food item illustrated in this Figure contains a complete balanced block of full units of carbohydrate, protein and fat.

The above illustrate sample of the many combinations of units that can be prepared to signify the various foods that may be eaten. In a highly preferred form, each unit will either show a protein content in seven gram amounts, a carbohydrate content in nine gram amounts or a fat content in one and a half gram amounts or a combination of these nutrients.

Figure 7 is an illustration of a template that could be used in conjunction with the units, the coloured squares corresponding with the background colours of the units.

5 To utilise the system, a substantially flat surface is selected. If the units are magnetized, then a convenient surface could be, for instance, a thin metal box with the template figures 7 and 8 on the front. The interior of the box would provide storage for the magnetic units. The wall or door of a refrigerator or some other surface composed of a metal that will attract a magnet or other item could also be used. The surface can, in
10 one form, be delineated such as by applying a template to the surface which does not interfere with the ability of a magnet to be attracted to the surface. One form of template could for instance be what is known as a 'fridge magnet' or any other suitable magnetic or non magnetic material. It will however be understood that it is not necessary to have the surface delineated, since with sufficient familiarity of the system, the user will be able
15 to assemble the units in the desired order without the necessity of using a template or other guide.

The template illustrated in Figure 7 would represent a typical three block meal selected according to the requirements of the system when the squares have been
20 completely occupied by selected food units.

Figure 8 represents templates for a typical one block snack.

Figure 9 represents a partially completed three block meal which includes of a
25 half cup of yoghurt 2, nine almonds 6, thirty grams of lean chicken 8 and a kiwi fruit 1. In this example a template is used in conjunction with the surface and is provided with coloured spaces for the units to be positioned on the spaces to complete the construction of a three block meal.

30 If a template is used it will also preferably includes further spaces for storing units prior to the units being assembled onto the template. Such spaces can be coloured or

otherwise identified to assist in the placement of the units so they can be readily located when required.

By utilising the blocks in the manner described, it is possible to construct a meal
5 having the desired balanced diet.

The application of the block system as described above enables a person to see pictures of common foods and the nutrient provided by such foods and then by moving the units a surface can build up a meal having the desired nutritional and dietary qualities.
10 Consequently the person is able to readily visualize how the diet plan is working because the user is able to select food items from the three groups and move them onto the surface to illustrated the composition of the meal.

While in the above disclosure a method of planning a dietary program is
15 described using a plurality of units signifying either carbohydrate, protein or fat macronutrients of combinations of those macronutrient which can be physically located on a surface, it is to be understood the invention also contemplates replacing the units with electronically simulated units which can be located on an electronically simulated background. Such an electronic system can be generated by appropriate electronic
20 programming in a computer with appropriate hardware to generate and display the dietary program. It is envisaged that a program using the system would be designed not only for desk top type computers, but also for computers commonly known as lap tops and hand held devices.

25 Having described preferred methods of putting the invention into effect, it will be apparent to those skilled in the art to which this invention relates, that modifications and amendments to various features and items can be effected and yet still come within the general concept of the invention. It is to be understood that all such modifications and amendments are intended to be included within the scope of the present invention.

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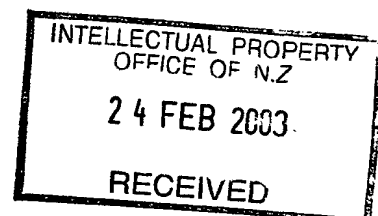


Figure 1

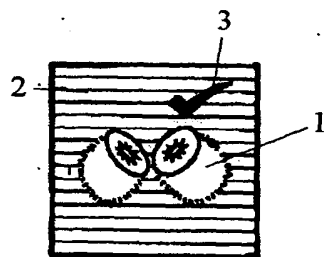


Figure 2

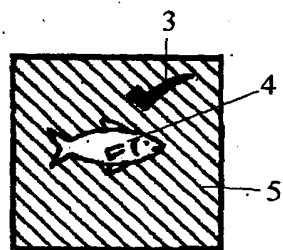


Figure 3

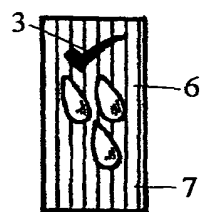


Figure 4

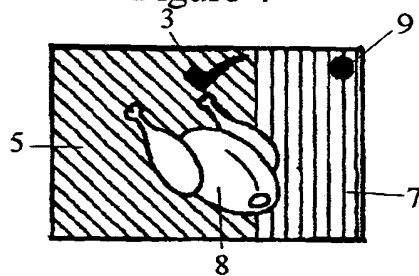


Figure 5

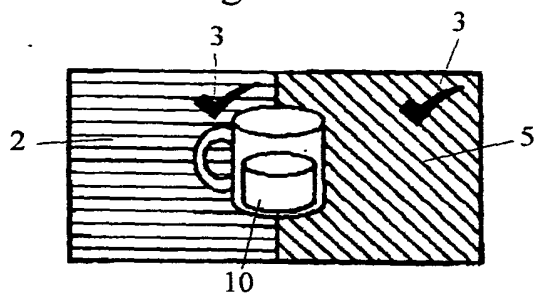


Figure 6

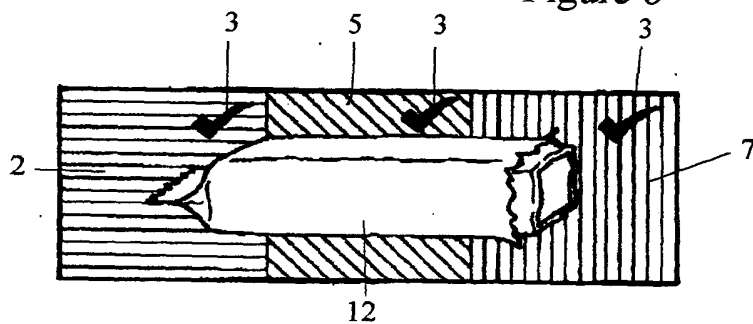


Figure 7

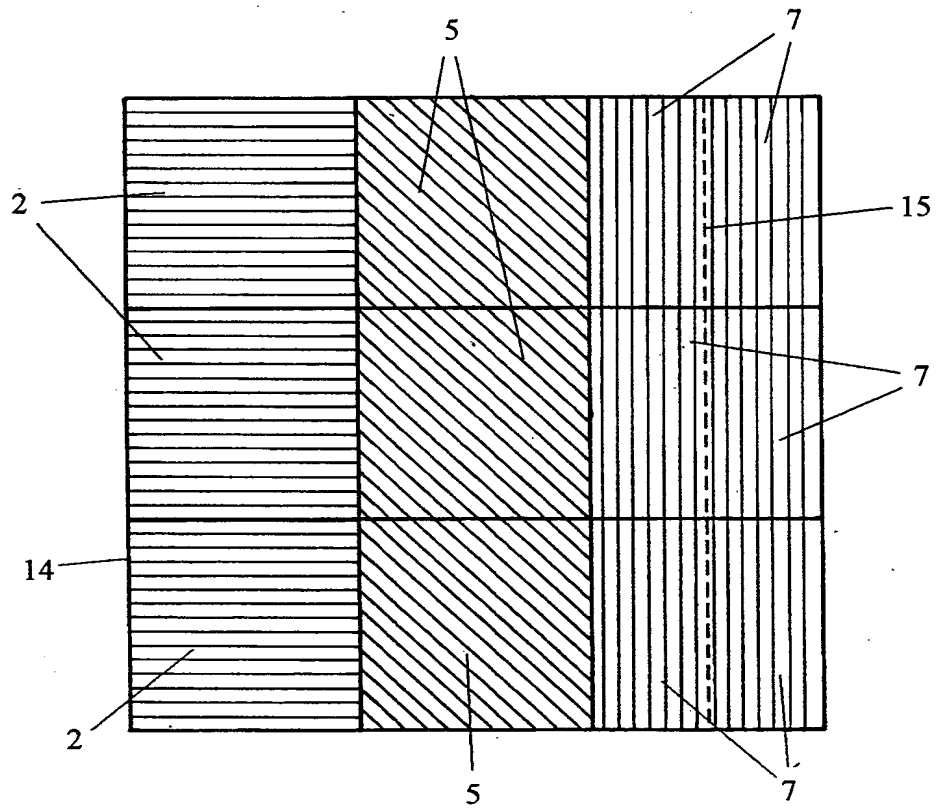


Figure 8

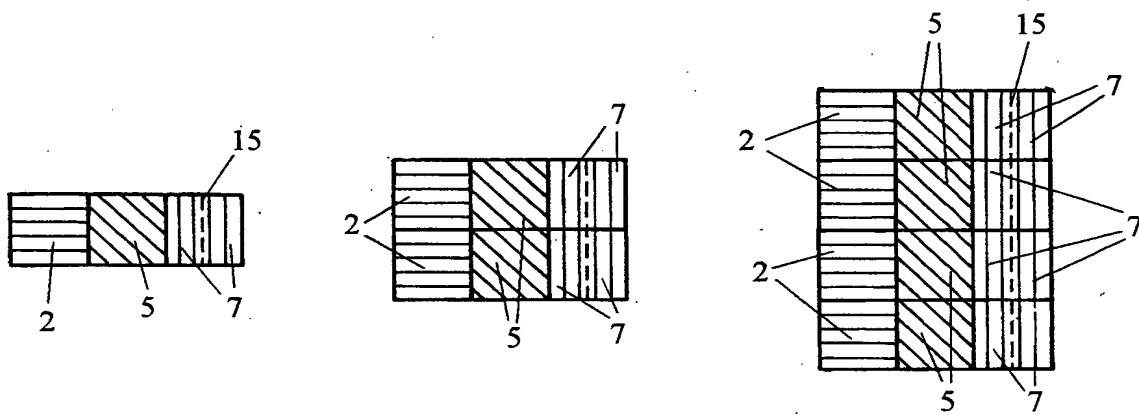


Figure 9

